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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,849	01/21/2005	Tobias Georg Tolle	DE 020184	6182

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER
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BAISA, JOSELITO SASIS

ART UNIT	PAPER NUMBER
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2832

MAIL DATE	DELIVERY MODE
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06/28/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Office Action Summary</b></p>	<p>Application No.</p> <p align="center">10/521,849</p>	<p>Applicant(s)</p> <p align="center">TOLLE ET AL.</p>	
	<p>Examiner</p> <p align="center">Joselito Baisa</p>	<p>Art Unit</p> <p align="center">2832</p>	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pilniak [EP 0522475] in view of Tanigawa et al. [5621636].

Regarding claims 1 and 15, Pilniak discloses a conductive plate **11** having an inductive function, which inductive function corresponds to a structure of at least one spiral-shaped slit formed in a single plane in the plate, spiral-shaped slit comprising at least two full 360° loops around a solid center portion **13.1** of the plate located at a center position of the spiral-shaped slit [Abstract, Figure 5a].

Pilniak discloses two full 360° spiral-shaped loops around a *solid center portion*, which is the inner most part of the winding 7a of the plate 11.

Applicant claimed a spiral-shaped slit around a solid center portion but in the specification, page 5, lines 19-24, applicant discloses the metal plate where inductances are produced by means of spiral slits has cut outs 50 to 56 where through magnetic materials project in order to close the magnetic circuit.

Pilniak discloses the instant claimed invention discussed above except for a circuit arrangement in the device.

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Tanigawa et al. disclose a device with a circuit arrangement that includes an inductor [Col. 3, Lines 1-9, Figure 2].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the conductive plate of Pilniak that has an inductive function to the circuit arrangement of Tanigawa et al.

The motivation would have been to provide a thin coil of high inductivity on a thin circuit board to save space for the structure [Col.2, Lines 10-20].

Regarding claims 2 and 16, Pilniak discloses that the structure of slits is formed by at least two spiral-shaped slits [Abstract, Figure 5a].

Regarding claim 3, Pilniak discloses the spiral-shaped slits are provided with a respective contact points in their central region and / or at least one further contact point 4 is arranged adjacent the spiral-shaped slits and /or between the central region and the periphery of a spiral-shaped slit [Figure 5a].

Regarding claims 4 and 5, Tanigawa et al. further disclose a printed circuit board 2, which supports the circuit arrangement and is electrically coupled to and supports the electrically conductive plate by way of the contact points [Col. 3, Lines 5-10, Figure 2a].

Regarding claim 6, Pilniak discloses an electrically conductive plate **11** that has the function of a plurality of coils, the number of which corresponds to the number of spiral-shaped slits [Claim 1].

Regarding claim 7, Pilniak discloses the electrically conductive plate **11** is formed is formed as a sheet of metal [Abstract].

Regarding claim 8, Tanigawa et al. further disclose an insulating layer is provided between the printed circuit board and the electrically conductive plate [Col. 4, Lines 5-10].

Regarding claim 9, Tanigawa et al. further disclose that a layer of magnetic material **32**, notably a ferrite material, is provided on at least one side of the electrically conductive plate [Col. 3, Lines 5-10, Figure 2a]

Regarding claim 10, Tanigawa et al. further discloses that there is provided an arrangement which comprises two layers of a magnetic material **32a**, **32b** where between the electrically conductive plate is arranged, on one outer side of the arrangement there being provided a printed circuit board **2** which is electrically coupled to the electrically conductive plate [Col. 3, Lines 3-10, Figure 2a].

Regarding claim 11, Tanigawa et al. further disclose a cooling layer **1** which consist of a suitably thermally conductive material, notably metal, and that components of the device which

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are to be cooled are arranged between the cooling layer 1 and the printed circuit board 2 [Col. 3, Lines 35-40, Figure 1b].

Regarding claim 12, Tanigawa et al. further disclose that either of the electrically conductive plate or the layer of the magnetic material is used for cooling [Col. 3, Lines 35-40, Figure 1b].

Regarding claims 13 and 14, the recitation of a multi-phase converter in a power supply, they cannot be relied upon to distinguish over the Tanigawa et al. reference because they are seen as intended use (i.e., when the claim is directed to a circuit device, any recitation concerning the environment in which the circuit device is employed is not part of the inventive circuit device). Only structural and functional limitations are given patentable weight.

### ***Response to Argument***

Applicant's arguments with respect to claims 1-16 have been considered but are not persuasive.

Applicant argues that at least one spiral-shaped slit comprising at least two full 360° loops around a solid center portion of the plate located at a center position of the spiral-shaped slit.

Pilniak discloses two full 360° spiral-shaped loops around a *solid center portion*, which is the inner most part of the winding 7a of the plate 11. As what the applicant has mentioned in its

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remarks that the *solid center portion* is substantially spaced apart from the center portion, meaning it is still in the center portion of the spiral-shape slit.

### ***Conclusion***

Applicant's amendment and arguments have considered. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joselito Baisa whose telephone number is (571) 272-7132. The examiner can normally be reached on M-F 5:30 am to 2:00 pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joselito Baiša  
Examiner  
Art Unit 2832

jsb



ELVIN ENAD  
SUPERVISORY PATENT EXAMINER  
21 JUNE 07